

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Patent Appln. No. 09/620,707

radiation, etc.), (2) a recording photoconductive layer which exhibits electric conduction when irradiated with the recording light, etc., (3) a charge transfer layer which operates as substantially an insulator with respect to an electric charge of the same polarity as electric charge on the first electrode layer and also operates as substantially an electric conductor with respect to an electric charge of the opposite polarity, (4) a reading photoconductive layer which exhibits electric conduction when irradiated with reading light (electromagnetic waves for reading), and (5) a second electrode layer (conductive layer) which has permeability with respect to the reading light, which are stacked in the recited order. In this type of detector, signal charge (latent image charge) carrying image information is stored in a charge storage portion formed in the interface between the recording photoconductive layer and the charge transfer layer.

**Page 3, please delete the first full paragraph, and replace it with the following new paragraph:**

Particularly, in the above-mentioned Japanese Patent Application Nos. 11 (1999)-87922 and 11 (1999)-89553, there is proposed a detector where the electrode (light irradiating electrode) of a second conductive layer having permeability with respect to reading light is constructed with a stripe electrode consisting of a large number of main line electrodes. Also, a great number of secondary line electrodes, for outputting an electric signal which has a level proportional to a quantity of latent image charge stored in the charge storage portion, are provided within the second conductive layer so that the main and secondary line electrodes are alternately arranged in parallel to one another.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Patent Appln. No. 09/620,707

**Please delete the paragraph bridging pages 4 and 5, and replace it with the following new paragraph:**

The inventors of this application, in the detectors disclosed in the aforementioned [publication] Japanese Patent Application No. 11 (1999)-87922, particularly the detector where the main line electrodes and the secondary line electrodes are provided in the secondary electrode layer so that the main and secondary line electrodes are alternately arranged in parallel to one another, have made various investigations and experiments with respect to the relationship between the transmission factors and areas of the main and secondary line electrodes with respect to reading light and the magnitude of a quantity of signal charge that can be fetched from the detector, and have found the following relationship therebetween.

**Page 10, please delete the second full paragraph, and replace it with the following new paragraph:**

The method of forming the charge storage portion may employ, for example, a method of forming a charge storage portion in the interface between a charge transfer layer and a recording photoconductive layer (see the aforementioned Japanese Patent Application Nos. 10 (1998)-27137 and 11 (1999)-87922, filed by the applicant of this application), a method of forming a charge storage portion within a trapping layer or in the interface between the trapping layer and a recording photoconductive layer (see U.S. Patent No. 4535468), or a method of providing micro

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AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Patent Appln. No. 09/620,707

conductive members on which latent image charge is concentrated (see the aforementioned Japanese Patent Application No. 11 (1999)-89553, filed by the applicant of this application).

*AS*

**Page 19, please delete the first full paragraph, and replace it with the following new paragraph:**

And a quantity of signal charge that can be fetched from the detector 20 becomes the same as the sum total ( $Q_a + Q_c$ ) of the quantities ( $Q_a, Q_c$ ) of positive charge distributed to the capacitors  $C_{*a}$  and  $C_{*c}$ , and the positive charge distributed to the capacitor  $C_{*b}$  cannot be fetched as signal charge (for the details, see the aforementioned Japanese Patent Application No. 11 (1999)-87922).

**The paragraph bridging pages 27 and 28 is amended as follows:**

In addition, although in all the detectors of the aforementioned embodiments the recording photoconductive layer exhibits electric conduction when irradiated with the recording radiation, the recording photoconductive layer of the detector according to the present invention is not always limited to this, but may be one which exhibits electric conduction when irradiated with light emitted by excitation of the recording radiation (see the aforementioned Japanese Patent Application No. 10 (1998)-271374). In this case, a wavelength converting layer, called an x-ray scintillator which converts the recording radiation to light of another wavelength such as blue light, may be stacked on the surface of the first electrode layer. It is desirable that the wavelength converting layer employ, for example, cesium iodide (CsI). It is also desirable that